Account
Dashboard
Courses
Calendar
Inbox 51
History
Commons
Help 6

Spring Semester 2022 Full...

Home
Syllabus
Announcements
Zoom
Assignments
Files
Piazza
Discussions
Grades
Media Gallery
My Media
People
Resource List
NameCoach Roster
Quizzes
Pages
Collaborations
Rubrics
Modules
BigBlueButton (Conferences)
Outcomes

Course Syllabus

Jump to Today Edit

BIOS 215 Biosciences Lab Teaching Sp22

An Invitation to Learn

What is this course about?

TA experiences in our open-ended course-based undergraduate research experiences (CUREs) and our interactive lecture courses are ideal opportunities for students to model exploration, facilitate discussions, and mentor their peers during the independent work on team projects. *As these experiences and opportunities go beyond the responsibilities of a typical TA,* ***Peer Mentor (PM)*** *is a more accurate description of your role.* The learning environment is greatly enriched by having students who took a course previously return to the course in a leadership role. You do so much more than "assist" me with setting up the lab or grading assignments - in fact, I would not be able to teach the way that I do without your support.

Undergraduate PMs in FWIS 115 Exploring Biological Research Challenges, BIOS 311 Advanced Experimental Biosciences, and BIOS 313 Experimental Synthetic Biology will register for BIOS 215 BIOS LAB TEACHING [Course Description: Undergraduate teaching in a biosciences laboratory. Participate in meetings and selected seminars; supervise students in one or more laboratory sections. Provide group and individual instruction to undergraduates during and outside of laboratory classes. Instructor Permission Required. Repeatable for Credit.]

In addition to receiving course credit, we may have support from the Office of Undergraduate Research and Inquiry (OURI, https://ouri.rice.edu) or the Biosciences department to pay you for some of your time.

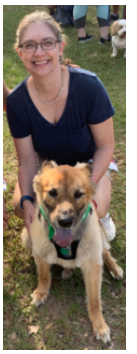
REQUIRED EXPERIENCE

Participation in this course is by permission of instructor only and is based on performing well in the associated laboratory course (BIOC/BIOS 311, BIOC/BIOS 313, or BIOC 112/FWIS 115) in a prior semester.

When do we meet?

Whole class meetings will be either in the lab or through Zoom in Canvas. Face-to-face location will be in the BioSciences teaching lab in Anderson Biological Laboratories (ABL) 126. Times will vary depending on which laboratory section you lead.

Who is the instructor?



Dr. Beth Beason-Abmayr (bbeason@rice.edu): All of you already know me but you may not know that much about me outside of the Biosciences teaching lab. I am a Teaching Professor of BioSciences and am in my 24th year teaching at Rice! And I'm a Faculty Associate at Brown college (BSWB!!). I earned a BS in Microbiology from Auburn University and a PhD in Physiology & Biophysics from the University of Alabama at Birmingham. I teach BIOS 311 Advanced Experimental Biosciences (AKA "Protein Lab"), BIOS 313 Experimental Synthetic Biology, BIOS 340/540 Integrative Animal Physiology, and FWIS 115 Exploring Biological Research Challenges. I am active in the American Physiological Society Teaching of Physiology Section and am chair of the APS-Institute of Teaching and Learning (APS-ITL). As a recently elected Councilor in the Education Division of the Council on Undergraduate Research (CUR), I will work with other educators who are dedicated to supporting and promoting undergraduate research at all levels.

I love spending time with my beautiful dogs, Stormy, a 10-year old Chow Chow mix, and Mystic, a very active 2-year old purebred Belgian Malinois:

I am an avid reader, all kinds of books. I love the outdoors, especially visiting National Parks, water-skiing on Lake Conroe, and skiing at Brighton Resort at the very top of Big Cottonwood Canyon, Utah.

January 2022

26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Assignments are weighted by group:

Group	Weight
Peer Mentor Leadership	95%
Reflections	5%
Total	**100%**

And David, my husband, earned his PhD in Chemistry from Rice with Dr. Paul Engel - he is a research chemist for ExxonMobil. His favorite hobby is amateur rocketry – both of us are members of Tripoli Houston . In case you didn't know, David designed and built Brown's Beer Bike Tower!

I will communicate with you primarily through Canvas so please make sure you have notifications "turned on" in Canvas so you get Announcements and other information about the course.

My research focuses on the Scholarship of Teaching and Learning (SoTL). The purpose of an ongoing study is to determine the factors that influence teaching effectiveness and learning. Your participation in this study will last for the duration of the current course and will entail activities no different from the regular activities you would otherwise engage in as part of this course. If you would like more information, please do not hesitate to ask. *If you would like to opt out of the study, please talk to Dr. Beason as soon as possible. [All protocols were approved by the Institutional Review Board of Rice University (Protocol FY2017-294).]*

Additionally, Rice is one of 12 universities participating in a National Science Foundation (NSF) project to create research rich undergraduate education by integrating research-based experiences into the curriculum: CUR Transformations Project . Our BioSciences department, is being studied as a model for curricular change. As a member of the Rice Leadership Team, I would greatly appreciate your completing a survey that will be administered at the end of the semester to give data to the NSF - the project PIs are studying students' learning experience and changes in the curriculum. I will not see your individual survey responses, just the compiled data.

What will I know or understand by the end of this course?

COURSE OBJECTIVES AND LEARNING OUTCOMES

BIOS 215 is an opportunity to learn and practice important skills related to teaching and professional behavior while assisting experienced faculty with laboratory instruction and feedback to students. It is also an opportunity to provide leadership by example to other teaching assistants and students in our laboratory courses.

Overall course learning goals are outlined below; expected learning outcomes are specified on the Home page in Canvas.

Goal 1: Recognize the importance of timely attention to responsibilities

We rely heavily on teaching assistants to provide our undergraduates the best possible laboratory experience. Timely feedack to individual students is particularly important, as it is through such feedback that they learn how to improve. Failure to meet these responsibilities can negatively impact a student's grade.

Goal 2: Understand how quality instruction and feedback can improve student performance

A successful learning experience is far more likely when observant and interactive teaching assistants provide timely and effective instruction and feedback.

Goal 3: Recognize the necessity of teamwork in mentoring and in assessing student performance

Teamwork is essential to the successful realization of all of these goals.

What do I need for class?

Bring your computer - the Canvas App does not have all of the features as Canvas online. I encourage you to take notes (either written in a notebook or recorded electronically) about what happens during lab. Your feedback will help improve the course as there may be common problems/issues/misunderstandings that arise.

And since this course may at times require meeting in an online format, you will need to access **Zoom** - *there will be a link specific for this course in Canvas.*

How should I prepare for class?

Each week while the course meets formally you are expected to prepare for each class discussion and laboratory session. For the detailed schedule and background/details for each class, see Canvas Modules.

Announcements will be sent at least once a week with important information about the course where you are a PLM; you are expected to read these Announcements in a timely manner - Announcements are archived in Canvas so you do not have to "dig" through your inbox to locate essential information about upcoming meetings, lab work, and/or assignments.

You will need to check Announcements and activities/assignments on the Canvas pages for both BIOS 215 and your specific lab course.

For discussions:

- Read over the material in Canvas and any additional materials and identify any questions for the instructor
- Watch the appropriate videos (links are in Canvas Modules)
- Obtain necessary information about techniques from the resources provided
- Come to each lab prepared to answer questions from students about the techniques, safety issues, scientific theory, and experimental significance

For laboratory work:

- Read the rules for safe conduct in the laboratory (see Lab Safety) before the first lab session and be aware of special safety concerns for each lab meeting; also review Rice_LabSafetyPolicy313.pdf
- Use resources to ensure that you know what we are doing and why we are doing it
- *Take notes in your team lab notebook using Google Docs in Canvas*: make sure you share your Google document with me so I have access to your lab notebook.

For follow-up work:

- Check Canvas frequently for new or updated class information

NOTE: Please bring your personal computer to discussion and lab with you so you will have access to assignments, procedure information, and additional resources during class (i.e., there are no handouts). Please see the course web site and Canvas for further details.

Why should I come to class?

You should come to every class meeting not only because it is required but also because you will learn a ton! In fact, your attending laboratory meetings and performing all duties required of the associated laboratory course are essential to the success of the course. Don't worry if this semester is your first one as a PLM. I have intentionally designed each class and the activities and assignments that you will do so you can learn about fundamental laboratory skills as you work on a real research project. As you know, the lab courses are built around teamwork – each member of the team needs to be in class so she/he/they can contribute to the success of the team and participate in class discussions and other activities (see BIOS_TLabs_LabCitizenshipFlyer.pdf). We have a limited amount of time together and there is so much I want to share with you about mentoring your peers. If you miss class, you will indeed miss important stuff – more than that, **we** will miss **you**! Some experiences just can't be sufficiently replicated outside of our learning environment.

That being said, I realize that sometimes things happen that are beyond your control. You may get sick or have unexpected emergencies. So what should you do if something like that happens? *Please contact me by email as soon as possible* – you do not need to tell me the details of "what" happened; I just need to know that unforeseen circumstances have prevented you from coming to class. If something unexpected happens to me, I will notify you through Canvas Announcements of any changes to the schedule and/or meetings.

What if you have something already scheduled, like the MCAT or a doctor's appointment that you can't change because it is with a specialist who is booked for the next 3 months? Well, I consider that an unavoidable situation - please let me know as soon as possible what day you will miss class so we can plan accordingly. And you will want to let your team know as well.

And *please do not come to class if you are not feeling well*. Due to the continued pandemic, we may need to change the typical mode of attending/delivering class during the semester - I will notify you through Canvas of any changes to the schedule and/or lab meetings as soon as possible.

What will I do during class?

PM responsibilities differ depending on which laboratory course you are leading. Examples of responsibilities include setting up/cleaning up the lab, demonstrating procedures, interacting with individual students, grading laboratory notebooks, answering questions both inside and outside of class, and evaluating student lab performance. I recommend you jot down specific things about each student in your section (i.e., things that they do well and any weaknesses you observe) – just make sure that students are not looking over your shoulder as you take notes.

You are encouraged to hold weekly office hours through Zoom.

In addition to working closely with students while they are performing experiments, you will initial/date the LAST notebook page for each lab session BEFORE the students leave the lab session. In FWIS 115, students keep an individual lab notebook that is a physical notebook. In BIOS 311 and 313, students keep an electronic lab notebook as a team.

PARTICIPATION

- PMs are expected to be actively engaged in the classroom. If you are joining class remotely, please keep your video camera on and microphone muted. Use the [chat, raise hand, unmute, etc.] when you have questions or would like to participate. Students needing an accommodation for using their camera or microphone should contact me at the beginning of the semester to discuss and work out needed adjustments.
- PMs should set up regular office hours through Zoom in Canvas - you may want to poll the class at the beginning of the semester to find out good days/times to meet; when major assignments are due you may want to schedule additional meeting times
- Use screen-share software, Google docs, Zoom breakouts, portable white boards, etc. if you need to view other students' work.
- Online discussions and activities are an integral portion of the course. You may be asked to engage in an offline dialogue with colleagues throughout each session as indicated in session directions.
- Active engagement is an essential component of the learning process. Participation in this lab course includes active reading and discussion within online forums and class activities during the week. TAs are expected to log into the course at the scheduled time, monitor course discussions, and engage as appropriate for the course several times a session.

TECHNOLOGY RESOURCES

- Students must have a working computer with a video camera, speaker and a microphone, and a working internet connection that allows them to be on video. Students should test their equipment before joining class. Undergraduate students should contact the Dean of Undergraduates if they have concerns about meeting this requirement.
- This course includes hands-on activities in the lab that require unique materials, equipment, or supplies. If you are participating in class remotely during a laboratory session, communicate with your team to determine how you can contribute to the work they are doing in the lab.
- Each work station in the lab will have a document camera that connects via USB; teams will be able to use these cameras to document the work they are doing in the lab for team members who are not physically present.
- If your computer/phone has no webcam/microphone, which may be needed to complete some assignments, please let me know as soon as possible and contact the Dean of Undergraduates if you need to request support via the Access and Opportunity Portal (HTTPS://AOP.RICE.EDU/APPLICATION).

PERSONAL PROTECTIVE EQUIPMENT (PPE) & PHYSICAL DISTANCING

Before returning to Rice each of you signed a "Culture of Care Agreement" where you promised to abide by the university's policies on PPE and physical distancing as well as other behaviors; you are expected to follow those policies at all times. Please carefully read the policies specific for this course (*also see PARTICIPATION below for additional guidelines for working in the lab*):

- Every student in the laboratory (ABL 126) is expected to properly wear a mask or face covering [RICE CRISIS MANAGEMENT POLICIES] and to abide by Rice's physical distancing policy (maintain at least six feet of distance from other persons whenever possible).
- Everyone is expected to wear proper attire to lab, including closed-toe shoes and long pants/skirt, and to use appropriate personal protective equipment (PPE) as instructed. Additionally, everyone must adhere to safety guidelines when working in the lab.
- I reserve the right to instruct students to leave the classroom if they are engaging in behavior that places faculty and/or students' health at risk. If students do not comply, I may cancel the class meeting and refer the student to Student Judicial Programs and the Dean of Undergraduates. *Please let me know immediately if you observe any risky or concerning behavior.*

PRIVACY and CONFIDENTIALITY

- In line with FERPA REQUIREMENTS , recorded classroom discussions involving students will be available only to students officially registered and enrolled in the class. If you have concerns about appearing on these recordings, please contact me ahead of time.
- I may desire or plan to use recordings from this class for another educational purpose. If this situation arises, and in line with FERPA REQUIREMENTS , I will ask you to consider signing individualized consent FORMS . Students who do not provide written consent will be de-identified and/or omitted from all recordings.

What if a student asks me something and I have no idea how to answer?

Try not worry about whether you will get asked a question that you do not know the answer to yet...although you probably will get a few of those types of questions, most of the questions will be about "where do I find this" or "how do I do this procedure." If anything comes up that you are unsure about, please don't hesitate to ask me – I will share my cell # with all of you so you can text me is something comes up unexpectedly.

One approach you can take is to guide the student into finding the answer on her/his own. All of you have taken one or more lab courses with me and have experienced firsthand how to learn in the lab environment. Please feel free to model what I do or what your TAs did when you took the course.

How will my learning be evaluated?

ASSESSMENT AND GRADING

Evaluation of your performance will be based on attending laboratory meetings and performing required duties responsibly and effectively. You are expected to prepare for class and lab meetings. Additioanlly Throughout the semester, Reflections will be submitted in Canvas. There will be no required exams or papers. This course may be repeated for credit.

LATE POLICY

I try to set due dates for assignments so that you have plenty of time to complete your work on time. That being said, I think these deadlines fall into one of two categories: ***soft deadlines*** – where being a little bit late won't matter too much; and ***hard deadlines*** – where being late actually does matter. For those assignments with soft deadlines, there will be two dates specified in Canvas: **Due** and **Until**, giving you a *flexible window for submission with a built-in grace period*. For those assignments with hard deadlines, the Due and Until dates in Canvas will be the same. And of course, there is no penalty for starting early! *Ultimately, it is your responsibility to plan ahead - and since a lot of the work is submitted as a team, I know that you don't want to be "that person" who let the team down.*

If you just overlooked a due date for something, please let me know and I'll see what I can do - I understand that you may feel embarrassed about forgetting to submit an assignment but if you don't let me know, then I have no idea what happened. If you find you need significantly more time with a particular assignment, please come talk to me and let me know your situation. We can probably figure out a solution.

Although beyond the hedges there are often no exceptions, you will be given a break on late submission of assignments due to circumstances that are truly beyond your control. *Alternative due dates will be worked out with me on an individual basis*. Here are a few examples of **circumstances beyond your control**:

- A *serious* illness or accident
- A *serious* family emergency or death (you are on your honor here)
- Other unusual circumstances may count also. For example, if the university closes due to flooding on the date the work is due.

My concern is for you as a person as well as your progress and ability to learn in this course. I have to be fair and make sure that I don't do anything for one student that I wouldn't/couldn't do for the entire class; however, being fair doesn't necessarily mean that everybody in the class does everything at exactly the same time.

What is the Honor Code Policy for this course?

All students will be held to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. Consult the Honor System Handbook at http://honor.rice.edu/honor-system-handbook/ for details about this code and how it is administered. This handbook outlines the University's expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

PLMs are expected to observe and maintain the Rice Honor Code in all of their lab-associated activities both inside and outside of class. TAs are expected to familiarize themselves with the Honor Code Policy for a specific lab course and to ask the instructor for clarification of any parts that are confusing or unclear. If a BIOS 215 student suspects a violation of the Honor Code for the lab course, she should submit a letter of accusation, along with all relevant evidence, to honor@rice.edu as soon as possible; if she would like to remain anonymous she may describe the incident to the instructor, who will then submit the accusation.

What other important information should I know about?

DIVERSITY, EQUITY AND INCLUSION STATEMENT

The BioSciences DEI mission statement can be found at https://biosciences.rice.edu/diversity-equity-and-inclusion . As your instructor, I am committed to these principles. This course may consider topics of historical and current discrimination. Please feel free to discuss with the instructor any issues related to DEI that you feel are not being adequately addressed in this course.

STUDENTS WITH DISABILITIES

Course material will be delivered digitally (online or email) or in book format and may be visual (written documents, slides, videos, etc.), audio (videos, presentations, discussions), or interactive (questions, discussions, clickers, etc.). Course work will require answering questions online, recording entries in an electronic journal, typing papers, reading written materials, discussing material with peers, etc.

Any student with a documented or suspected disability needing academic adjustments or accommodations should 1) make sure this documentation is on file with the Disability Resource Center (Allen Center, Room 111 / adarice@rice.edu / x5841) to determine the accommodations you need; and 2) *meet with me in person or by email before the first day of class* to discuss your accommodation needs – If you require refinement of your accommodations during the semester please do not hesitate to contact me. All discussions will remain confidential. I will work with you to help you learn.

Psychiatric/ mental health disabilities: Reports suggest that about 1 in 5 college students suffers from anxiety, depression, bipolar disorder or other mental health issues. Students with psychiatric disabilities are entitled to reasonable academic accommodations as provided by the American Disabilities Act (ADA) of 1990 and 2008 amendments. You do not need to have had your disability diagnosed before your arrival at Rice. To receive accommodations you must register with the Disability Support Services (DSS) Office in the Allen Center. A Rice student requesting accommodations must self-identify to the DSS office and provide recent documentation of their disability. This documentation is used to establish the Rice student as an individual with a disability, and provides rationale for reasonable accommodations. This process requires evaluation and documentation so do not wait until the last minute, speak with your healthcare professional or consult with the Student Wellbeing and Counseling Center (https://wellbeing.rice.edu). You will not need to disclose your specific disability with your instructor but documentation is required to secure accommodations.

GENDER DIVERSITY STATEMENT

Everyone has the right to be addressed by the name and pronouns that correspond to their gender identity, including non-binary pronouns, for example: they/them/theirs, ze/zir/zirs, etc. Rosters do not list gender or pronouns so you may be asked to indicate the pronouns you use so that I don't make assumptions based on your name and/or appearance /self-presentation (you are not obligated to do so). If you use a chosen name, please let me know. Chosen names and pronouns are to be respected at all times in the classroom. Mistakes in addressing one another may happen, so I encourage an environment of openness to correction and learning. I will not, however, tolerate repeated comments which disrespect or antagonize students who have indicated pronouns or a chosen name. Chosen name and personal pronouns may evolve over time, so if at any point during the semester you would like to be addressed differently, please let me know.

LAND ACKNOWLEDGEMENT

The state of Texas, where Rice University is located, has been a meeting and trading location for Indigenous tribes including the Apache, Caddo, Comanche, Kiowa, and Wichita. Three federally recognized tribes and two state-recognized tribes currently reside in Texas. The land that Rice University occupies is the ancestral home of the Karankawa, Atakapa-Ishak, and Sana peoples. A painful history of settler colonialism, genocide, and forced migration and assimilation occurred here, and the descendants of these communities need to be recognized and included in the history of our community

WELLBEING & COUNSELING CENTER

My care and concern for you goes beyond your work in my class. The Wellbeing and Counseling Center supports student development and success by providing a good first point of contact for you to talk to someone about solutions to your wellbeing and mental health concerns. You can **call 713-348-3311 (24/7)** if you want to talk to someone . Visit the Student Wellbeing Office and the Rice Counseling Center to learn about their services and resources. Additional guides and self-help resources for students can be accessed at Resources .

BASIC NEEDS SECURITY STATEMENT

Food and housing insecurity can make learning difficult. Students who are having trouble making ends meet are encouraged to find support through the Access and Opportunity Portal (https://aop.rice.edu) and resources provided by the Office of Student Success Initiatives (https://success.rice.edu). For undergraduates, your College Magisters may be able to provide additional assistance. For graduate students, the Graduate Student Association (https://gsa.rice.edu/funding) and the Graduate and Postdoctoral Studies office (https://graduate.rice.edu/academics/finance/moseleyadams) have additional resources that may be of assistance.

TITLE IX RESPONSIBLE EMPLOYEE NOTIFICATION

Rice University cares about your wellbeing and safety. Rice encourages any student who has experienced an incident of harassment, pregnancy discrimination or gender discrimination or relationship, sexual, or other forms interpersonal violence to seek support through The SAFE Office. Students should be aware when seeking support on campus that most employees, including myself, as the instructor/TA, are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. For more information, please visit safe.rice.edu or email titleixsupport@rice.edu. For more information about Title IX, please contact Title IX Compliance Officer Richard Baker.

RELIGIOUS ACCOMMODATIONS

Both Rice's policy of non-discrimination on the basis of religion and our core values of diversity and inclusion require instructors to make reasonable accommodations to help students avoid negative academic consequences when their religious obligations conflict with academic requirements. Every reasonable effort should be made to allow members of the university community to observe their religious holidays without jeopardizing the fulfillment of their academic obligations. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. You are obligated to provide me with reasonable notice of the dates of religious holidays on which you will be absent.

Information contained in this course syllabus, other than the absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Course Summary:

Date	Details	Due
Fri Jan 14, 2022	Reflection 1: Semester Start	due by 11:59pm
Mon Feb 14, 2022	Reflection 2: Framing	due by 11:59pm
Fri Mar 11, 2022	Reflection 3: Methodology and Evaluation/Synthesis	due by 11:59pm
Fri Apr 22, 2022	Reflection 4: Communication and Semester End	due by 11:59pm
Fri Apr 29, 2022	Reflection 5: Final Reflection	due by 11:59pm
	PM Leadership	